

# Random Decisions Viewed Historically

A short history of the use of lottery in governments

*Hubertus Buchstein*

Lottery has played an important role in the European history of ideas. Whereas in the past the will of God was thought to be manifested by lot, today lottery has the potential to produce decisions by a second-order rationality.

## The Religious Origins of Lottery

Choosing by lot, or lottery, is an ancient decision-making practice whose exact historical origins lie in prehistory. We know from archaeological and historical research that lotteries were used independently in various cultures around the world. Originally, it was exclusively an integral element of religious practices: the divine will was to be revealed by lot. It was only gradually that lottery drifted away from its religious origins and was recognized as a political decision-making process free of any need for metaphysical legitimation.

This development paved the way for the use of lottery as a technique for the artificial production of random decisions.<sup>1</sup> Behind the concept of randomness is the idea of statistical probability, and thus, the exclusion of human and other causal influences (cf. Chengwei Lui's contribution).

Despite this fundamental difference in the purpose of lottery, some of the early applications of lottery procedures for political decision-making and governmental activities can inspire contemporary discussion.

## Divine Decisions

In the oldest lottery technique known to today's archaeologists, one or more bones, called a *talus*, were thrown on the ground and their positions observed. The Sumerians, the first known high culture of the third millennium BC, made use of such practices. From the Sumerians and Assyrians, the *talus* found its way to theocratic Egypt, where it was used to select sacred high officials and temple servants by lot. The earliest evidence for the use of such throws in governmental practices comes from the Assyrian empire; some sources report that in 833 BC the prestigious name-givers for the new year were drawn by lot. Lottery was also part of the Nordic mythological world; in the *Edda*, wooden sticks were drawn to show who among the hard-drinking gods should die. Tacitus described the Germanic practice of drawing lots for plots of farming land for the year, and Caesar reports that the Germans determined the most pro-

pitious day for the beginning of a campaign by lottery. Lottery practices were passed down among Finno-Ugric peoples for the distribution of goods and land and among Native American tribes in North America.<sup>2</sup>

Lottery was used for thousands of years for religious, social, and political decisions.

## Jewish and Christian Traditions

The Jewish tradition offers a particularly vivid source for the various ways in which lots can be used to decide government action. Almost all Old Testament sayings contain this phrase from Solomon's proverbs: 'his every decision comes from the Lord'.<sup>3</sup> According to reports in the Old Testament, priests' positions and responsibilities in the temples were drawn by lot. In the surviving writings, lotteries also perform a function that was of central importance for government at the time: the distribution of land. The writings report repeatedly how the land of Canaan was divided by lot among the different tribes of Israel. According to biblical sources, the unbelievers who had previously settled in the land and were defeated in war were also distributed by lot as slaves among the twelve tribes. It is also reported how, after the return from exile, every tenth man was chosen by lot to rebuild the capital. The Book of Judges tells of a military vendetta in which every tenth man was chosen by lot for war. There are also reports of lottery used to make decisions in social and political everyday life. In Solomon's proverbs, choosing by lot is generally praised as a means of settling conflicts: 'Choosing by lot puts an end to disputes, and between the powerful it decides'.<sup>4</sup>

Finally, lottery also plays a central role in the transformation of Israel from a priesthood to a monarchy in the first book of Samuel. Samuel organized a lottery in stages to determine the first new king: first among all the tribes, then among the clans, then among the families, until the last among the men of the last family was drawn: Saul, full of fear and hidden in the bag-

gage. The rationale of the divine will as an instrument of the king's choice, presented by Samuel, is unambiguous in this passage: men would never have chosen such a timid candidate; it was God's decision to choose the right one, with whom the Jews could later celebrate their great military victories.<sup>5</sup>

At least a certain reflection of this Jewish tradition can be found in Christianity in some passages of the New Testament, for instance when the evangelist Luke reports the lot used to select Zacharias for priestly service in the temple,<sup>6</sup> or when, according to Acts, Matthias is accepted by lot as successor of the disreputable Judas.<sup>7</sup> This account became seminal for early Christianity. Many early Christian congregations, following the recruitment of the apostle Matthias, chose their ministers before other forms of official appointment predominated in the integration of Christianity into the hierarchy of the Roman Empire. Traces of this early Christian practice can be found today in the term *kleros*, the Greek word for lottery.

Even today, we still come across religious interpretations of the significance of lottery, such as the method used for appointing ministers among the Mennonites and the Amish in the USA, who strictly follow early Christianity. The Coptic Pope is still selected by lot from three previously elected candidates. And it is still the case in Tibet that according to custom the Dalai Lama is found with the help of lottery. Currently, there is a conflict between the Tibetans and the Chinese government, which some years ago confiscated the golden urn used for the lottery to undermine the legitimacy of any future Dalai Lama chosen by the Tibetans. Overall, however, religious reasons for choosing by lot have become less important, and lottery is now understood less as an expression of divine will than as a technique for making random decisions.

Even this short account of early uses of lottery for religious purposes clearly shows how diverse their range of applications has always been. Lotteries have been used for the entire repertoire of ecclesiastical and governmental action: officials were selected by lottery, property decisions were made, goods were distributed, and unpleasant duties were assigned.

### The Rationalization of Lottery in Athens

Even if the sacred signs later faded when lottery procedures were legitimized, this did not detract from their functional variety. On the contrary, the decisive step towards the modern use of lottery techniques occurred after lottery techniques migrated from the Assyrian and Egyptian empires to the Greek region.

In the archaic Greece of the eighth century BC, lottery was still associated with religious contexts; for example, Homer reported in the Iliad how the world was distributed between Zeus, Hades, and Poseidon by lot,<sup>8</sup> and Odysseus had his soldiers draw lots from his helmet to decide which of them would go with him to Circe's house and which remain behind.<sup>9</sup> Homer's heroic poem is typical of the time in its description of the use of lottery. We know that both in the archaic epoch and in later centuries in many of the several hundred ancient Greek city-states known to us today, the selection of priestesses for religious ser-

VICES, pairings in the wrestling bouts, the arrangement of the choirs, the order of the comedies and tragedies for performances in the theatre, and even the role of the main actors and the cast of the flautists were determined by lot under the invocation of the gods.<sup>10</sup>

In ancient Greece a great proportion of the public officials were appointed by lot.

For the use of lottery specifically in the field of politics, we have an informative contemporary source for one of the city-states of the time, ancient Athens, in *The Constitution of Athens*, attributed to Aristotle. Aristotle describes in this text how the lottery was successively extended in five stages from the Draconian Constitution (ca. 621 BC) to the appointment of almost all officials in the era called radical democracy (from 403/2 BC).<sup>11</sup> His description attributes the Draconian constitution of the oligarchic Athens to the liberation of members of the council and some civil servants. He reports from Solon that he was able to reorganize the Athenian oligarchy in 594 BC, among other methods, by first drawing up a list of the members of the most powerful families seeking election to civil service positions, and then assigning the fields of duties among them by lot. Aristotle also describes how first under Themistocles and then under Pericles, an ever-greater proportion of the public officials in Athens were appointed by lot. The final stage was radical democracy, as he himself had experienced with disapproval in Athens.<sup>12</sup>

In Aristotle's day, democratic Athens had about 700 civil servants, 600 of whom were appointed by lot and almost 100 by elections. Elective offices were reserved for those activities that required certain essential qualifications in order to perform them. This was the case for membership of the college of warfare strategists and for posts that required a particularly skilled workforce in reading and writing, such as financial administration and protocol. All other government offices were drawn by lot, as was membership of the Council and all courts.

Aristotle's account not only provides an impressive picture of the extent of the offices whose occupants were drawn by lot; it also offers important points of departure for justifying the use of lottery without the sacred. With regard to Athenian democracy, Aristotle emphasizes in several passages of his *Politics* that the lottery gives every citizen the same chance to hold a political office.<sup>13</sup> In such passages, he follows Plato by describing the election as an aristocratic selection procedure and the lottery as a genuinely democratic one – and then criticizing it all the more strongly.<sup>14</sup> And the connection to democratic equality also coincides with Aristotle's reflections on Tyche, the goddess of good fortune, whom he depersonalizes in his scientific writings and understands as a happy coincidence beyond our influence.<sup>15</sup>

Aristotle considers several other aspects of the use of lotteries in politics and society. In the example of Solon's reforms mentioned above, he explains the rationale of the lot procedure with its pacifying effects in an oligarchic system. Another exam-

ple of this conflict avoidance function can be found in *The Constitution of Athens*, this time with reference to democracy. A board of ten men 'are selected by lot to take care of the sanctuaries [...]. They see that the girls who play the flute, the harp or the lyre are not hired for more than two drachmae'<sup>16</sup> and if several men seek the same young girl, they draw lots. This lottery mechanism is designed to secure the sexual order in ancient Greek society by preventing violent disputes among old men over the spectacle of young girls.

Another important reason Aristotle gives for using lotteries is the fight against corruption. In *Politics*, he reports on corruption and the purchase of offices in a city-state called Heraia. Then, he praises the reform measures there: 'The open election was replaced by the lottery because those who had bribed had been elected'.<sup>17</sup> He adds the following explanation to his description of the multistage lottery processes for judges in Athenian democracy: 'He is drawn by lot so that the clerk [a key technical position in the organization of trials] is not always the same one and so can commit irregularities'.<sup>18</sup> We also find similar considerations among his contemporaries, such as Demosthenes or the unknown author of the *Dissoi Logoi*, who praised the drawing of lots for the appointment of judges as an important precaution against attempts at bribery.<sup>19</sup>

Aristotle considered lottery as a good way to establish equal opportunities and counter corruption.

The diverse lottery practices in the ancient Greek city-states are remarkable for two reasons. Firstly, we find here a diversity of the use of lotteries at all levels of government that cannot be found again in later political systems. Secondly, the ancient discourses on lottery shifted their theoretical justifications of the practice over time. Ancient philosophers secularized lotteries, and thus, came very close to the modern understanding of randomness.<sup>20</sup> For example, Aristotle no longer regarded the lottery as a medium exclusively for determining a divine will; indeed, he rather attacked such a view with objectively justified functional arguments. He implicitly demanded good practical reasons for the use of lotteries in politics and society. Only with this secularization of lottery could the potential range of random decisions be extended to all levels of government.

### The Rediscovery of Lotteries in the Renaissance

After the collapse of the world of the Greek city-states, lottery procedures became marginal in politics. In the Roman Republic, although the first-voting groups were drawn by lot at the popular assemblies, the entire procedure was prepared in such a way that randomness made no difference to the final result. The lottery in politics only re-emerged with the *imborsazione* in Italian city republics. The term *imborsazione* is the noun for 'putting something in a bag', or 'bagging', as it is also called in older translations.

The beginning of this re-emergence cannot be dated to a precise year, and one cannot even say exactly where it began. However, this new attempt to use lottery in politics can clearly be associated with a new form of political governance that had been emerging since the eleventh century: the city republics of Northern Italy.<sup>21</sup>

From the twelfth century, a variety of election and voting procedures reminiscent of Athenian conditions were documented in these republics. The drawing of lots for magistracies probably began with the notaries in the twelfth century. This was a highly qualified professional group in which many courted the most lucrative orders from the municipalities for their relatives. The first scattered mentions of the use of lottery bags for government offices can be traced back to the middle of the thirteenth century. There are documented combinations of election and lot for the members of the Council of Bologna (1245–50), for the members of the Consilium of Novara (1287), and for the highest government posts in Pisa (1307). These are precursors of today's partial lotteries, which follow a preselection aimed at qualification (cf. the contributions by Margit Osterloh, Katja Rost, and Joël Berger). From the middle of the fourteenth century, there was an 'inflation of decisions by lot'<sup>22</sup> in the Italian republics, and from then on, we find lottery in almost all republics.

Equal opportunities for the aristocracy through partial lottery made Venice to a stable republic.

To this day, Venice is the most famous. Here, a complicated multistage procedure of a mixed lottery and election procedures was used to select the Doge and other high officials in the republic.<sup>23</sup> Unlike Florence, which staggered from one constitutional revolution to the next, Venice was regarded for centuries as the epitome of a stable noble republic until it was crushed by Napoleon. This stability, as can be read in various contemporary treatises, was attributed to a considerable degree to the lottery. This is because a moment of random selection provided each of the large and powerful families with as good or bad chance at lucrative political positions as the other families, and they therefore refrained from choosing the far riskier paths of violent coup or civil war.

### The Enlightenment End of Lottery

After the fall of the Republic of Venice, lottery again became an obsolete model in the political toolbox. This temporary end of the lottery had its deeper reason in a gradual process that deeply changed political mentalities. Human reason and human will were the two basic concepts on which the Enlightenment spirit created its new visions. Both required that the lottery be discarded due to its arbitrariness. Reason enables the selection of quality, while lot ignores quality; will is expressed in a conscious vote, in which the individual decision-maker is part of a causal mechanism, while lot produces passive and unwilling decisions.

### Impulses for Practice

- Lottery has a rich traditional past. It already appears in early religious contexts.
- In ancient Greece lottery had been used as a rational decision mechanism.
- Lottery as a decision mechanism disappeared in the age of Enlightenment.
- Nowadays there are also options for the application of lottery.

The incorporation of chance into a legitimate political order was difficult to fit into the enlightening impetus of politicians and political theorists who were foremost in fighting against the arbitrary regimes of feudal absolutism. Should one form of arbitrariness be exchanged for another, mere chance, instead of rational human reason and common political will? The underlying concepts of lottery were diametrically opposed to the intentions of Enlightenment thinkers.

Lottery mechanisms were rarely reintroduced during this period; one exception is its use at the University of Basel in the eighteenth century (cf. the contribution by Katja Rost and Malte Doehne). Only a few Enlightenment authors were able to gain some insight into lottery processes at the end of the eighteenth and beginning of the nineteenth centuries. Among these exceptions were Thomas Paine in North America, Condorcet in France, and Jeremy Bentham in England. These thinkers all included lottery procedures at certain points in their draft constitutions to counter corruption and the influence of powerful people.<sup>24</sup>

The basic concepts of Enlightenment, human reason and human will, put a stop to lottery for the time being.

From today's perspective, these are three lonely and now-obscure pioneers of a renewed return of lottery in the name of political reason. Only in today's epoch of reflexive modernity, whose self-image includes enlightenment about the limits of the Enlightenment, has the negative attitude towards the factor of chance given way to a more differentiated view.

### The Second Rediscovery of Lottery Today

Today, lottery procedures have long since been retrieved from the curiosity cabinet of the political past and find themselves institutionalized in a variety of ways and more frequently propagated.<sup>25</sup> In most cases, lottery procedures should not be used alone but should be combined with procedures such as qualification tests and elections (cf. the article by Bruno S. Frey).

In comparison with rival decision procedures, the lottery has the highest degree of 'procedural autonomy', as Niklas Luhmann has described the isolation of procedures from their surrounding environment.<sup>26</sup> Lotteries are therefore highly neutral.

Neither good or bad reasons nor intensive preferences or strong interests can make any difference to an error-free lot procedure.

However, when can or should lotteries be sensibly employed in politics? It would be pointless and lead to an infinite regress were we to employ lotteries for the decision-making process to employ lotteries. There is no escaping the fact that we must find good reasons for lotteries. Basically, five general arguments are made for the use of lotteries in politics.<sup>27</sup>

1. *Decision Legitimacy.* In these cases, recourse is made to the lottery just to reach a decision; the flip of a coin after a stalemate in counting votes for a political office is such a case. The decision argument is particularly obvious in cases where it seems impossible for those involved to arrive at a well-founded decision. Jon Elster classifies three types of case: absolute 'uncertainty', complete 'indifference', and 'incommensurability' of decision alternatives.<sup>28</sup> In such cases, reason demands that chance be allowed to decide. Any further insistence on rationally justifiable decisions would be irrational: a pathological hyper-rationality that refuses to rationally recognize the limits of rationality.
2. *Equality Legitimacy.* According to this argument, lotteries are unequalled in guaranteeing the equality of all those participants in a decision-making process. In lotteries all the participants are absolutely equal in the sense that they are all subject to the same probability that the lot will fall to them. In any equality argument there is the implicit assumption that all participants in the lottery have an equal number of lots (were the number of lots to be unequal, then we would speak of a weighted lottery). The historical paradigm for the egalitarian use of lotteries in politics is the drawing of lots for offices in ancient Greek democracy described above.
3. *Representativity Legitimacy.* A third argument deals with the specific representation effects of lotteries for political office. It is not concerned with small twelve-member juries, for instance, but is applied exclusively in larger bodies. The voluntaristic variant of this argument sees the virtue of lotteries for posts in larger political bodies (e. g., citizens' assemblies) in its fair representation. The prototype for the voluntaristic notion of representation is a faithful reflection of a society's heterogeneity. The deliberative variant of this argument is less concerned with an exact mirroring of society than with an increase in the social heterogeneity of those political bodies that can be created by lotteries. The hope is that a larger number of various perspectives and experiences can be taken into consideration in the political advisory process.
4. *Efficiency Legitimacy.* Another type of argument claims that a lottery has the potential to increase the efficiency of political institutions and processes. The virtue of a lottery is that it is unerringly accurate, so there are no more decision-making costs to be borne; deadlocks are alien to lotteries, and by extension so are elaborate and costly repetitions of decision-making processes, too. Another argument concerning efficiency is that lotteries, as a rule, are very economical processes. Compared with most other political procedures, lotteries demand little expenditure of time and other resources. Deliberation and consensus are procedures and procedural

rules which stand at the opposite end of the efficiency scale in politics. Thus, in addition to majority rule, lotteries may also be used when no more deliberation seems likely to lead to a consensual decision.

5. *Productivity Legitimacy*. This is an extension of the cost-efficiency argument, for in certain situations lotteries can be justified on the assumption that they will ultimately have productive effects. These are, as a rule, indirect effects, as in the case of spot checks. We know of such random sampling in tax audits, doping tests, and hygiene and foodstuff controls. The basic idea is the same in all cases: all those subject to the rules are left in uncertainty as to whether and when a more thorough check will be undertaken, thus encouraging them to adhere to the regulations. This is the same logic employed by the productivity argument: that lotteries serve to discourage corruption.

Lottery is highly objective, fair, economical, egalitarian, and productive.

Each of the five arguments can claim validity independently of the other four. Each argument starts with a concrete problem and claims that the lottery offers an appropriate procedure to solve this problem. Thus, the question of the use of lottery procedures becomes a practical question of government action that should be discussed in a pragmatic way and independently of ideologies and metaphysical systems of thought. The results of lottery procedures are arational. It requires a higher level of rationality, a second-order rationality, to recognize the rationality of arational procedures in certain contexts.

### References

- 1 See Hacking, I.: *The Taming of Chance*, Cambridge/Mass 1990.
- 2 For these and the examples above, see Buchstein, H.: *Demokratie und Lotterie. Das Los als politisches Entscheidungsinstrument von der Antike bis zur EU*, Frankfurt/Main 2009, pp. 20–23 and 133–136.
- 3 Old Testament, Proverbs 16.33.
- 4 Old Testament, Proverbs 18.18.
- 5 See Old Testament, 1 Samuel 10.17–24.
- 6 See New Testament, Luke 1.9–11.
- 7 See New Testament, Acts of the Apostles 1.21.
- 8 See Homer: *Iliad*, 15.191.
- 9 See Homer: *Odyssey*, 10. 206–209.
- 10 On the widespread use of lotteries in the Greek city-states see Buchstein, H.: *Demokratie und Lotterie*, pp. 17–60.
- 11 See the following Aristotle: *The Constitution of Athens*, 22.5–10.
- 12 See Hansen, H. M.: *Die athenische Demokratie im Zeitalter des Demosthenes*, Berlin 2002.
- 13 See Aristotle: *Politics*, 1273a18–20 or 1273b40.
- 14 For the debate on Plato's and Aristotle's classification of the lottery see Buchstein, H.: *Countering the 'Democracy Thesis' Sortition*

### Abstract

The use of lotteries as a tool for political decision-making has a long tradition which dates back to early periods of human development long before the discovery of 'chance' as a non-causal phenomenon. Using a lottery was part of a religious practice to figure out god's will. Over time, lotteries lost their exclusive religious connotation and became recognized as a tool for decision-making by pure chance without any metaphysical connotations. The article reconstructs the major historical steps of the use of lotteries in administrative and political decision-making up to today as well as the potential second-order rationality of decision-making by chance.

Ancient Greek Political Theory. In: *Redescriptions* vol. 18, 2015, pp. 201–233.

- 15 See Aristotle: *Physics*, 196a2–6.
- 16 Aristotle: *The Constitution of Athens*, 50.2.
- 17 Aristotle: *Politics*, 1303a15.
- 18 Aristotle: *The Constitution of Athens*, 64.2.
- 19 See Guthrie, W. K.: *The Sophists*, Cambridge 1971, pp. 316–319.
- 20 The concept of pure mathematical probability was still alien to ancient philosophers; it was invented in the seventeenth century and only found its way into the everyday understanding of bourgeois society via mathematical theory. Even the modern understanding of contingency as a noncausal event cannot be found among ancient philosophers. For the similarities and differences of these understandings of randomness, see Hacking, I.: *The Emergence of Probability*, Cambridge/Mass 2006.
- 21 On the use of lottery tickets in the early Italian republics see Buchstein, H.: *Demokratie und Lotterie*, pp. 150–154.
- 22 Keller, H.: *Wahlformen und Gemeinschaftsverständnis in den italienischen Stadtkommunen*. In: Schneider, R./Zimmermann, H. (eds.): *Wahlen und Wählen im Mittelalter*, Sigmaringen 1990, pp. 345–374, here p. 363.
- 23 For details of the complex use of lotteries in Venice, see Buchstein, H.: *Demokratie und Lotterie*, pp. 155–164.
- 24 See Dowlen, O.: *The Political Potential of Sortition*, Charlottesville 2008, pp. 200–204.
- 25 See Sintomer, I.: *Das demokratische Experiment. Geschichte des Losverfahrens in der Politik von Athen bis heute*, Wiesbaden 2016.
- 26 On the concept of procedural autonomy, see Luhmann, N.: *Legitimation als Verfahren*, Frankfurt/Main 1969, pp. 69–75.
- 27 See Buchstein, H.: *Reviving Randomness for Political Rationality. Elements of a Theory of Aleatory Democracy*. In: *Constellations*, vol. 17, 2010, issue 3, pp. 435–454.
- 28 Vgl. Elster, J.: *Solomonic Judgements*, Cambridge 1989, pp. 116–121.



Prof. Dr. Hubertus Buchstein  
Professor for Political Theory and  
the History of Ideas, Institute for political  
and communication science,  
University of Greifswald  
buchstei@uni-greifswald.de